



Safety Gram

Marine Corps Mishap Synopsis & Lessons Learned

Safety Division's Monthly *Safety Gram* is provided to senior leaders to maintain awareness of mishap trends that directly affect the operational readiness of the Corps. This information should also be disseminated at every level of your command to assist high-risk Marines and Sailors in understanding the impact of the decisions they make every day both on- and off-duty.

February 2013: Mishap Summary

The Mishaps below occurred throughout the Marine Corps from February 1st— February 28th, 2013 causing serious injury or death to Marines, and/or damage to equipment.

6 February 2013: A Marine lost control of his car and was ejected from his vehicle on a Marine Corps installation. The Marine was not wearing a seatbelt and was pronounced dead at the scene by paramedics.



19 February 2013: A CH-46E experienced a hard landing during flight operations in Thailand. There were 7 casualties: 1 urgent and 6 routine.



Aviation Mishaps & Hazards:

1 Feb 13: Aircraft engine ingested FOD during maintenance run. Class C AGM

4 Feb 13: Water bottle fell out of aircraft in flight. HAZREP

7 Feb 13: Aircrew fell off of sponson during pre-flight aircraft inspection and fractured wrist. HAZREP

14 Feb 13: Aircraft blades impacted hangar during ground taxi. Class B AGM

19 Feb 13: Aircraft had hard landing and burned. Class A FM

19 Feb 13: Aircraft experienced right wing fold damage during system operation. HAZREP

26 February 2013: A Marine experienced a parachute malfunction while conducting military free-fall parachute operations. The malfunction resulted in the Marine falling to his death.



Motorcycle Commuting Lessons Learned

That bike in your garage isn't just for Sunday mornings. Commuting on a motorcycle is becoming more common place with rising gas prices, not to mention you'll save time (one of the most valuable resources you have), reduce parking problems, and your work day will begin and end with less stress and more pleasure. Four years ago I began working for CMC Safety Division and began commuting to work on a motorcycle over some of the busiest highways and streets in the country. I've ridden over 40,000 miles just to and from work, which has proven to be a very enjoyable, reliable, cost effective, cold, wet, and with the help of the proper skills, experience, and refresher training, a very safe way to commute. Experience though is the ultimate teacher. So I've compiled five basic steps to riding in traffic that I've found to be extremely important to help keep me safe while commuting.

Step 1: Trust No One

Learn to rely on one person, and one person only: yourself. Be paranoid. When you see a dented, dirty or neglected car, be especially paranoid. Dents are a rolling history of mistakes, and you don't want to be involved. Dirt and neglect show disinterest, and that disinterest probably bleeds into their driving as well. Experience has taught me to watch for particular car types in addition to neglected cars. Watch for minivans, they're usually purchased to carry the kids, so the driver is often dealing with much more than the road. Beware of high-performance cars in a hurry; a modern car can accelerate and change lanes surprisingly quickly, so give them room if they're driving aggressively. What car types can you trust? None.

Step 2: Avoid Blind Spots

If one thought rules your urban riding, let it be this: Stay out of blind spots. If you can't see the driver's face in the car's mirror, that driver can't see you and you simply don't exist. Place blind-spot avoidance on top of your priority list for urban survival. Use acceleration, deceleration and lane position to "ride in the mirrors" of the cars around you. The Highway Patrol teaches its riders to constantly move through traffic, to ride slightly (**slightly**) faster than traffic and move through blind spots rather than in them. Of course, just because you're riding in the mirrors of a car doesn't mean that driver will use that mirror before changing lanes into you. Position yourself so that if the driver fails to see you in the mirror, you still aren't in danger of getting tagged. You will know when you're riding well and staying clear of blind spots because you are no longer using your horn to warn encroaching drivers of your presence; they've already seen you in the mirror,

alongside or ahead. In fact, the response to "loud pipes save lives" is "get out of the blind spot."

Step 3: Be Defensive, Be Aggressive

Combining defensive tactics and aggressive riding will create a complete riding portfolio. The secret is knowing when to use each of the tactics. Defensive riding means being aware of your space and maintaining that space by positioning yourself in surrounding traffic. Riding defensively is a way of looking at traffic to predict its effect on you, and making sure that effect is minimal. Riding aggressively is much less a way of riding than an applied technique to be exercised only occasionally. As motorcyclists, we must put ourselves in view, and sometimes that means a bit of aggressive throttle use to come up even with a driver's window. Simply put, sometimes slowing down is extremely dangerous and some aggressive acceleration or lane changing is called for. Put yourself in a position with an escape route if your worst-case predictions come true. Look for traffic patterns and try to move through traffic, rather than sit within a knot of traffic.

Step 4: Make Room for Others Mistakes

In case you haven't noticed, drivers make mistakes. Dozens of them, from no turn signal to last-minute freeway exits to locked brakes at a yellow light to—well, how long of a list do you need? America's current driver's training programs aren't going to correct America's drivers in the foreseeable future, so the secret is to plan on and predict the mistakes and make sure you're not affected. In other words, give them room to screw up. Understand this: You won't change the mistakes being made out there, but by recognizing and giving them room to happen, you won't be negatively affected by them either. There's no reason to get upset, violent, aggressive or reactionary; once you begin to make room for mistakes, it becomes almost humorous to watch the stupidity around you because you will no longer be taken by surprise or put in danger.

Step 5: Slow Down in Town

Speed itself doesn't kill, but it sure makes those sudden stops painful. Basically, too much speed makes us unreadable. The car driver looks down the street, sees a headlight approaching at what he guesses to be the speed limit, and proceeds through the intersection. Unfortunately, the bike is doing double the speed limit and slams into the side of the car. Whose fault is it? Not the car driver's. Slow down to be seen; slow down to avoid being misread.



Did You Know: 12 Tips for Riding in Traffic

Watch drivers' head movement

Watching the head movements of drivers through their windows and mirrors is an excellent way to anticipate sudden moves. **Most** drivers won't lunge left or right without first moving their heads one way or another (even if they don't check their mirrors). This is also extremely valuable to notice who is talking or texting on a phone, or generally not paying attention.

Trust your mirrors, but not totally

Your bike's mirrors can be lifesavers, but they don't always tell the entire story even if they're adjusted properly. In traffic, always reinforce your mirror-generated rear view with a glance over the appropriate shoulder do it quickly, and you'll add an extra measure of rear-view and blind-spot knowledge to your info-gathering tasks.

Never get between a vehicle and an off-ramp

This sounds almost too simple, but drivers who decide to exit at the last minute kill plenty of riders each year, the simple rule is to never position yourself between a vehicle and an off-ramp. Passing on the right is generally a bad idea, but in this day and age it's sometimes necessary, do so between exits or cross-streets.

Cover your brakes

In traffic you must often react extra quickly, which means not fumbling for the brake lever or pedal. To minimize reach time, always keep a finger or two on the brake lever and your right toe close to the rear brake pedal that way when that cell phone-talker cuts across your path you're ready.

Be ready with the power

In traffic, ride in a gear lower than you normally would so your bike is ready to jump forward instantly, doing so gives you the option of leaping ahead instead of being limited to just using the brakes when that pickup suddenly moves over. The higher revs and ensuing muffler noise also alert more cars to your presence.

Traffic slowing? Stay left (or right)

When traffic slows suddenly, stay to the left or right of the car in front of you this provides an escape route if needed, it will also help keep you from becoming a hood ornament if the car behind you fails to stop in time. Once you've stopped, be ready--clutch in, bike in gear, eyes on the mirrors, and be ready to move.



Practice the scan

Constantly scanning your entire environment while riding--from instruments to mirrors to the road ahead to blind spots to your left and right rear--keeps you aware and in touch with your situation, and therefore better able to react. Dwelling on one area too long--watching only behind or in front of you, leads to tunnel vision and is just begging for trouble.

Ride in open zones

Use your bike's power and maneuverability to ride in the open zones within traffic. In any grouping of vehicles there are always some gaps; find these and ride in them this will separate you from cars, give you additional room to maneuver and allow you to keep away from dangerous blind spots. Be sure to vary your speed riding along with the flow can make you invisible to other drivers, especially in heavy traffic.

It's good to be thin

A huge advantage single-track vehicles have over four-wheelers is their ability to move left and right within a lane to enable the rider to see what's ahead. Whether you're looking to the side of the cars ahead or through their windshields, seeing what's coming can give you lots of extra time to react.

More than one way out

Motorcycles fall down, but they're also light, narrow and hugely maneuverable, so you might as well learn to exploit their strengths when things get ugly. Don't just brake hard in a hairball situation there's almost always an escape route, swerving into a random front yard could be a lot better than t-boning the car that turned left in front of you. Always have an escape route planned, and update it minute by minute.

Running interference

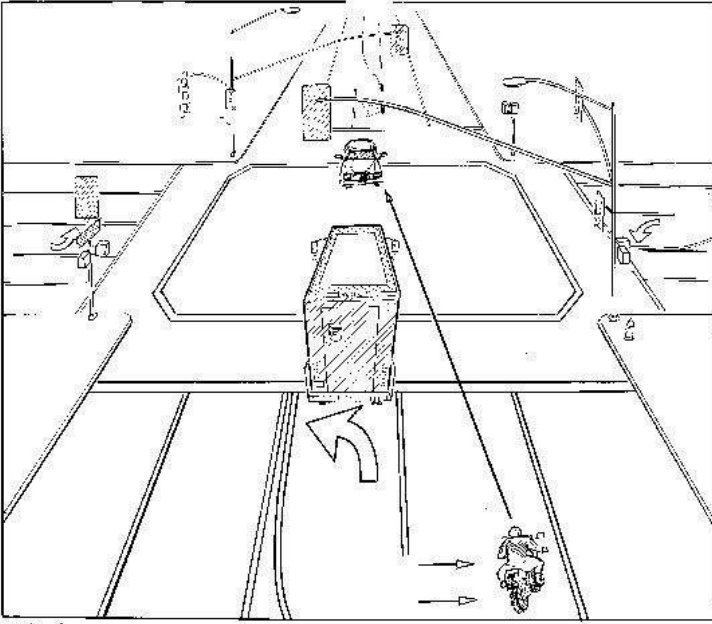
This one's easy, and we'll bet most of you already do it: Let larger vehicles run interference for you when negotiating intersections. If the driver on their cellphone coming toward you from the left or right is going to blow the light, better they hit the box van next to you. For the same reasons don't lunge through an intersection as soon as the light turns green, be patient and use the vehicles next to you as cover.

Left-turn treachery

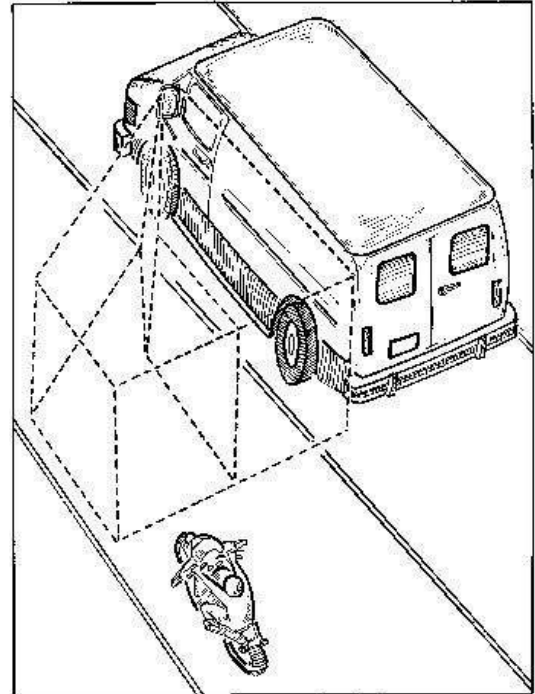
When approaching an oncoming car that's stopped and about to turn left, be ready. Your high beam should be on so the driver can see you (during the day), but don't rely on this to save you. Watch the car's wheels or the driver's hands on the steering wheel if you see movement, be ready to brake, swerve or accelerate, whichever seems best for the situation.



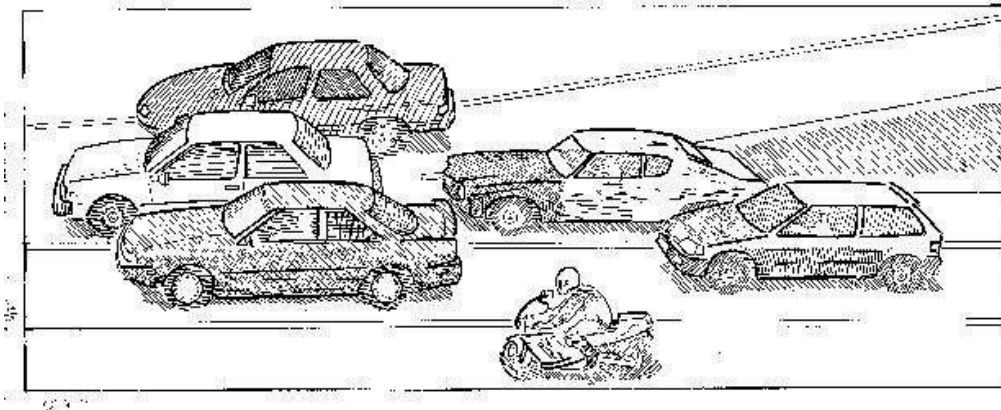
Traffic & City Related Collisions



Intersections are one of the toughest challenges. Notice how the rider is positioned on the right side of the lane to gain and give the most unobstructed view possible, a good idea since the car waiting to turn left is all but blinded by the delivery truck. Slow down, cover your brakes, and use lane position to maximize your visibility.



A car's blind spot varies according to the vehicle, mirror size and mirror adjustment. Anytime you're parallel to a car, truck or van, you're in the most dangerous spot on the road. Learn to move through this Death Spot aggressively; don't ride in a blind spot, even for a few seconds.



An ugly chain reaction can be started when a car squeezes into the right lane of a crowded freeway, and you'll be affected if you don't take action. Predict possible outcomes and place yourself safely in surrounding traffic; often that means safely accelerating ahead of the mess.

